

BUILDING A BETTER FUTURE FOR SILICON VALLEY

Converting unbuildable land into an affordable and sustainable community



PROBLEM

There is no more land to build on in Silicon Valley. Developers can't make a profit building affordable housing or affordable communities. There are areas around the bay that haven't been developed for decades because it doesn't pencil out or because it is in a flood or seismic hazard area. What if you could build an affordable housing community or mixed use development and still make a profit?

SOLUTION

Arx Pax makes affordability and sustainability profitable. The Arx Pax SAFE (Self Adjusting Floating Environment) Foundation System is a new pre-fabricated, pre-cast concrete kit-of-parts that protects people, property and communities from floods, earthquakes and rising sea levels.

We innovate by integrating well proven technology that will disrupt coastal real estate development models worldwide. Providing greater margins per unit of development, Arx Pax enables more affordable housing and more sustainable construction techniques by separating the buildings, infrastructure, and community open spaces from destructive forces. Instead of spending billions on rebuilding after disasters, we can now build responsibly and sustainably to last for generations.

SELF-ADJUSTING FLOATING ENVIRONMENT VIDEO

VALUE PROPOSITION—LOCATION, LOCATION, LOCATION

The Arx Pax SAFE Foundation System™ makes sustainability profitable by increasing what, where and how much can be built. High value projects are now possible in "unbuildable" areas, creating profitable, sustainable, and resilient communities.

Ideally located but otherwise low value land can be purchased at a significant discount and then developed at its true "highest and best use." Adding together the discounted land cost, site work and the foundation, Arx Pax can provide the SAFE Foundation System or "get out of the ground," for less money. This also provides the benefits of a community or project resistant to natural disasters.

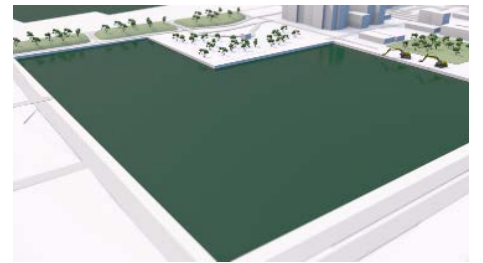
GO-TO-MARKET STRATEGY

Arx Pax will sell and license the SAFE Foundation System to builders, land owners & developers, corporations and manufacturers to allow economical, sustainable and resilient communities. With a team of world recognized partners in architecture, engineering and construction we are continuing to develop the technology with growing interest from around the world.

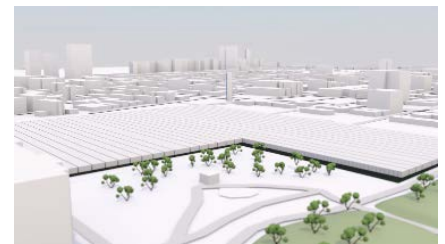
Contact: Greg Henderson, CEO Greg@ArxPax.com



CONTAINMENT VESSEL or CONVES
(Dig a shallow pool)



BUFFER MEDIUM
(Fill with water)



CONSTRUCTION PLATFORM
(Connect the modules)



SAFE FOUNDATION SYSTEM
(Rise above the flood)



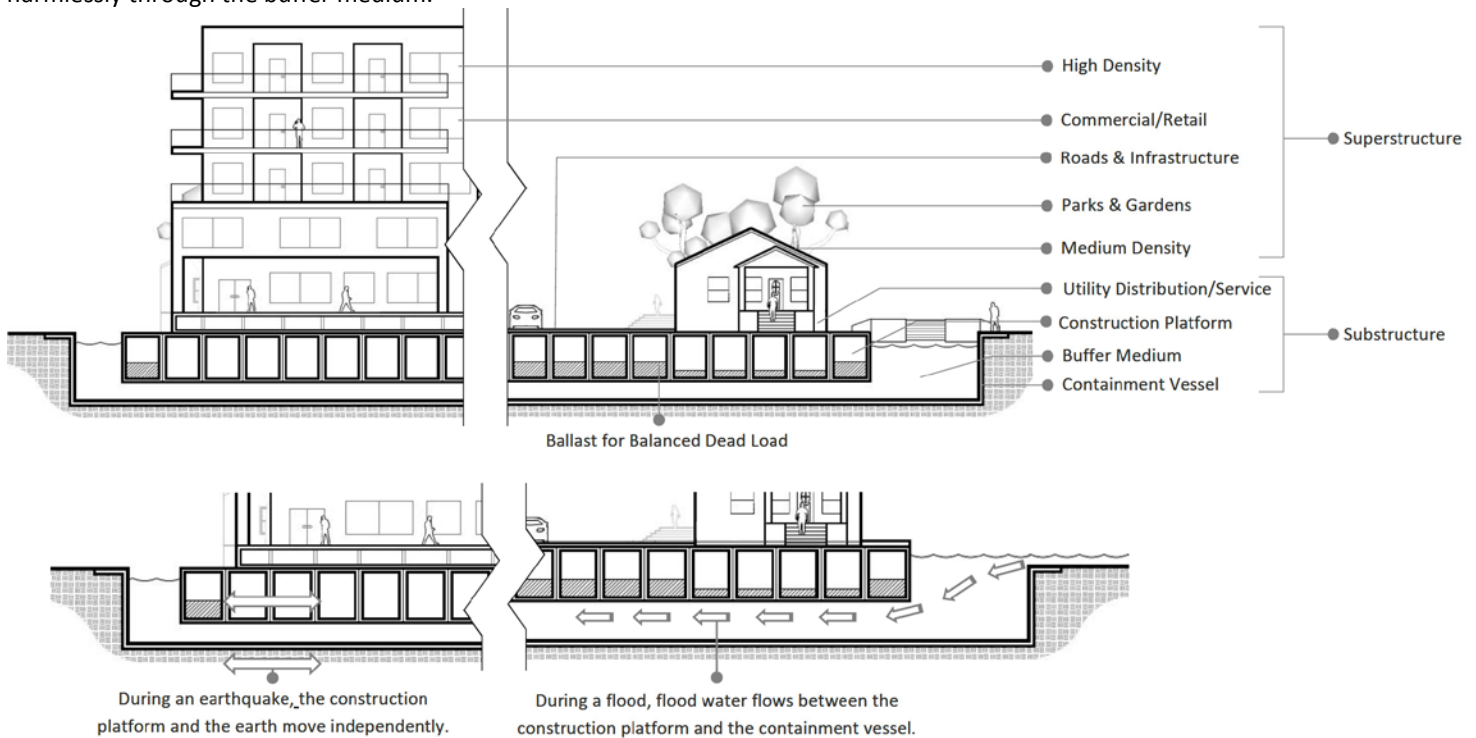
US Patents: [8777519](#), [9103118](#),
[9398878](#), [9790702](#)

#BuildSAFE

FOR PEOPLE, PROPERTY, AND
PLANET

A RESILIENT CONSTRUCTION TECHNOLOGY OVERVIEW

The SAFE Foundation System (SAFE) is a new pre-fabricated, pre-cast concrete floating foundation system designed to protect the built environment from the destructive effects of floods, earthquakes, and accelerated sea level rise. By physically separating structures, including buildings, roads, utilities and other infrastructure from the earth, SAFE allows destructive forces to pass harmlessly through the buffer medium.



SAFE is flexible and can be designed to provide stable floating platforms for most building types. Water zones are intended to provide setbacks, view corridors, daylight planes and efficient mass transportation routes. Using well understood construction and product type also provides design criteria, market data and is familiar to local communities and governing agencies.

ONE SYSTEM. THREE RAPIDLY DEPLOYABLE SOLUTIONS:

1. Hybrid Sites – Introduce water to the site, always floating in a containment vessel (ConVes).

Sample Location: California, Pacific Rim

Site conditions: High water table, flood and seismic hazards

2. Wet Sites – Existing bodies of water, always floating, no ConVes

Sample Location: Florida, Australia, Pacific Islands

Site conditions: Rapid deployment in marinas, lakes, bays, rivers,

3. Dry Sites - Floats on demand during periodic flooding

Sample Location: Texas, Louisiana, Carolinas, Bangladesh

Site conditions: Large flat floodplains and floodways

Based on Archimedes principle, steel and concrete float by displacing volumes of water of greater mass. In most floating structures designed for transportation, stability is sacrificed for speed. Hulls are designed to minimize surface area and therefore, drag. In order to maximize stability, displacement should occur over the largest possible area. Very large floating structures can be assembled that displace a large volume of water by spreading the volume over a large area at a relatively shallow depth.

For SAFE, modular precast concrete pontoons the size and mass of intermodal shipping containers are moved and assembled together using standard shipping and construction equipment. Post-tensioning the modules together provides a rigid construction platform on which to build. The platform can be expanded as required. Stability is achieved by balancing dead loads on the construction

platform to keep the center of mass over the center of buoyancy regardless of live loading conditions.

An example: The SR 520 Bridge in Washington State is a very large floating concrete structure. The area of the concrete pontoons is 19.9 Acres. They displace 402,000 tons and carry an additional 175,000 tons of roadway, ballast and live loads. The bridge is designed for long life, 89 mph winds, 20' of vertical change in water level and large earthquakes. SAFE is less complicated and can support over 20' of vertical change in water level. Most important it is repeatable, scalable and more cost effective than one-off projects.

The SAFE modules are designed to be pre-fabricated offsite and readily deliverable for rapid assembly or precast on site. As a prefabricated foundation system, the bearing capability is known and allows for pre-design and engineering of superstructures. This will minimize limitations discovered in the site survey process. Liquefaction, poor bearing pressure, organics, expansive clays and differential settlement have negligible effect on SAFE. Excavated dirt can be used effectively to elevate parks, which become part of the overall anchoring system and provide for a balanced site of cut and fill.